

FIG 2.

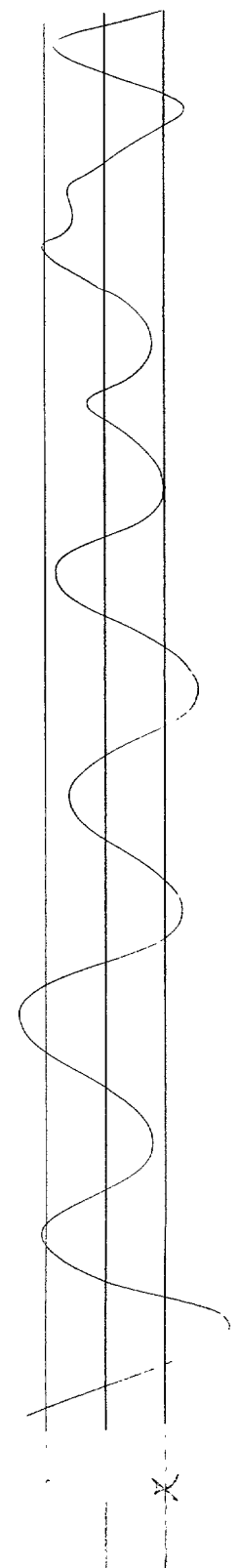
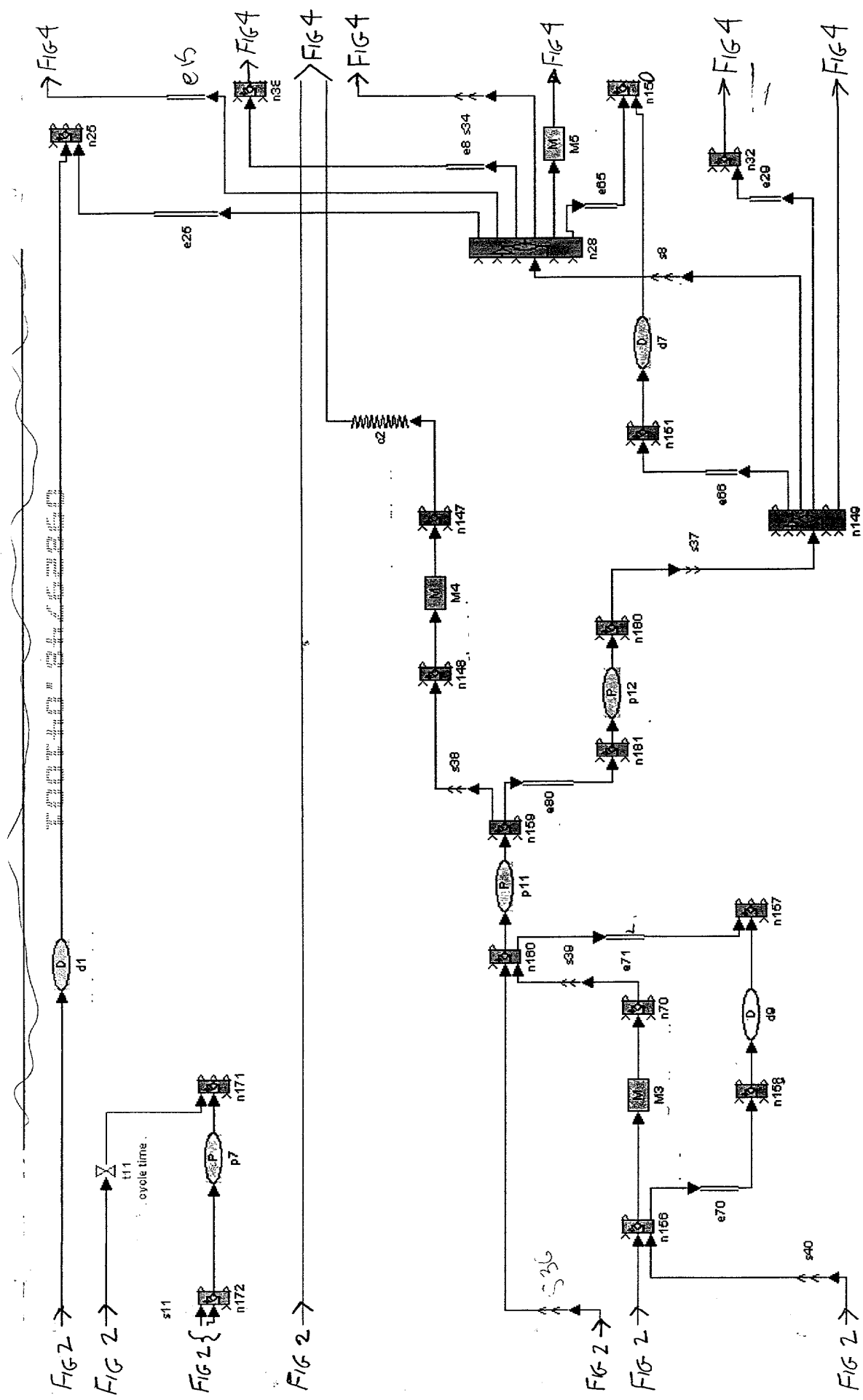


FIG 3

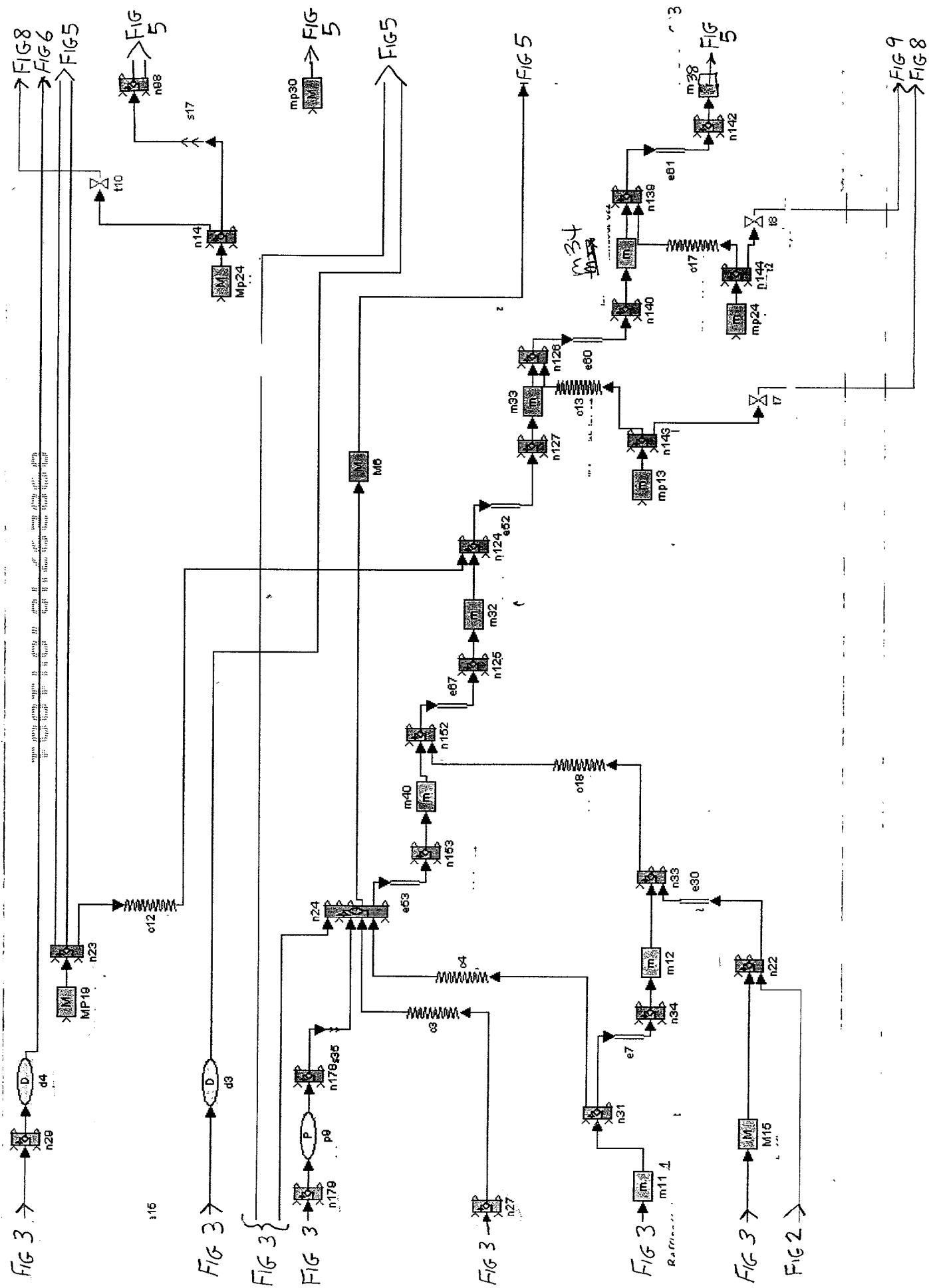


FIG 4

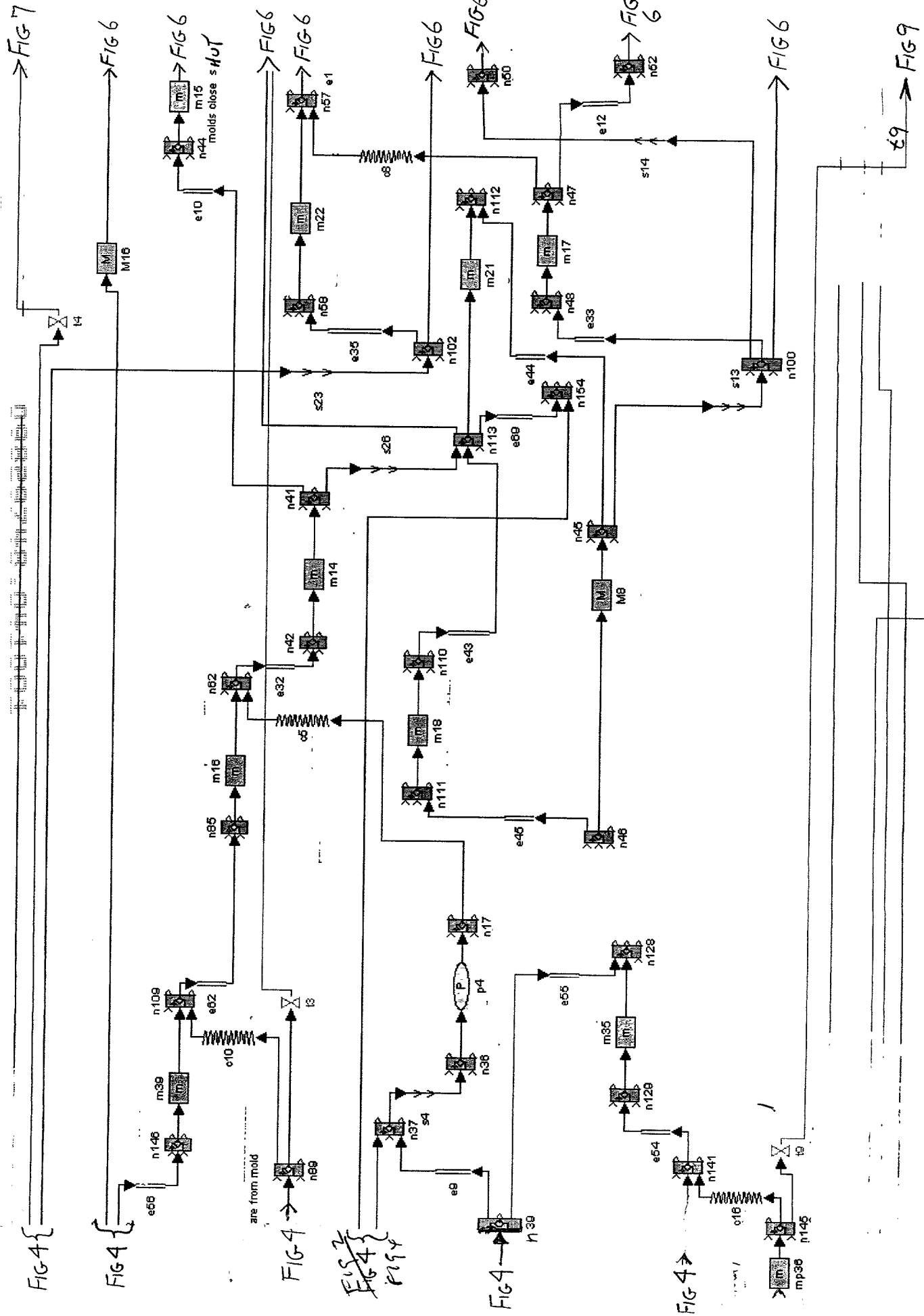


FIG 5

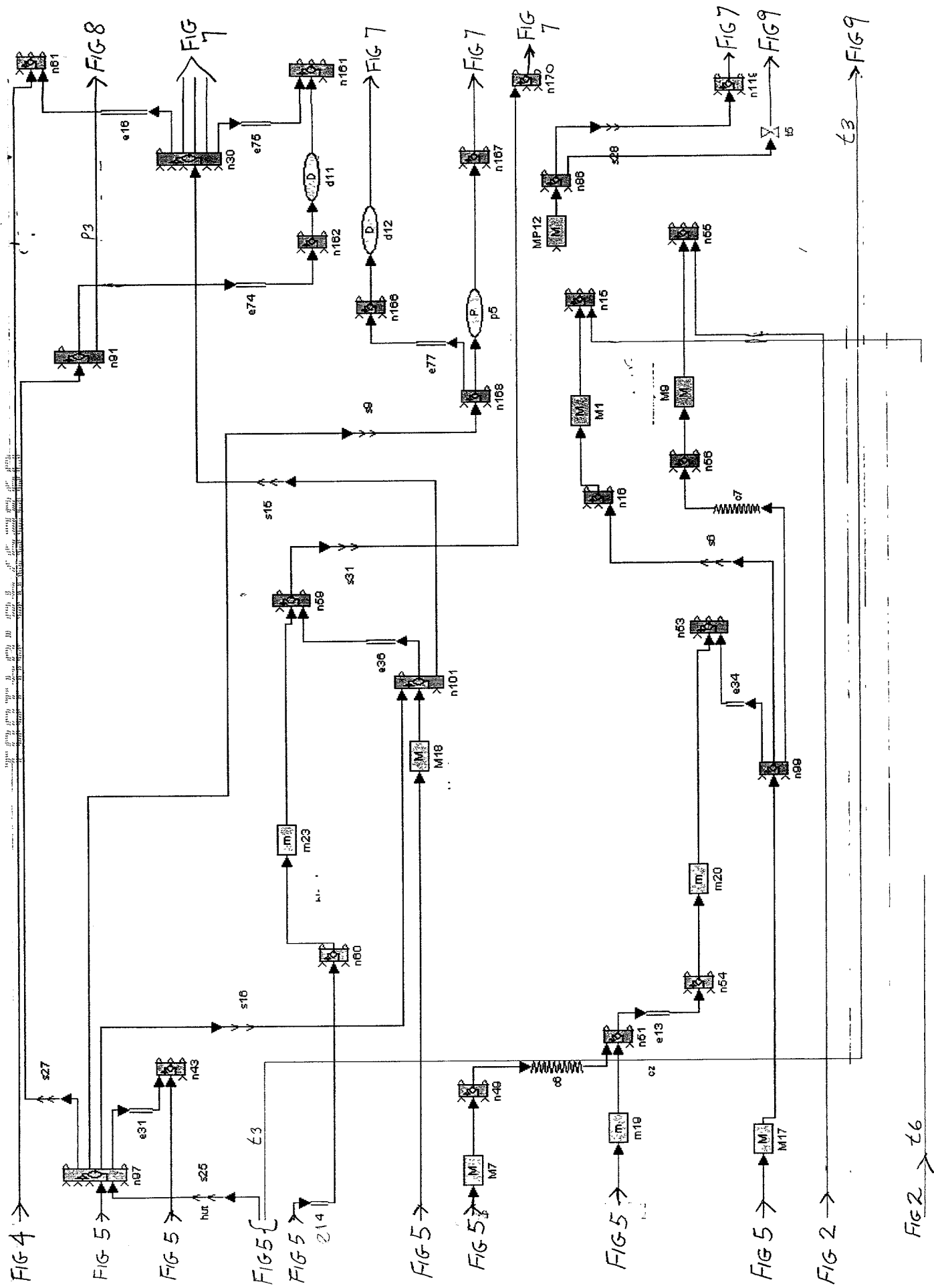


FIG 6

FIG 5

64

FIG 8

FIG 8

FIG 8

n103'

FIG 6

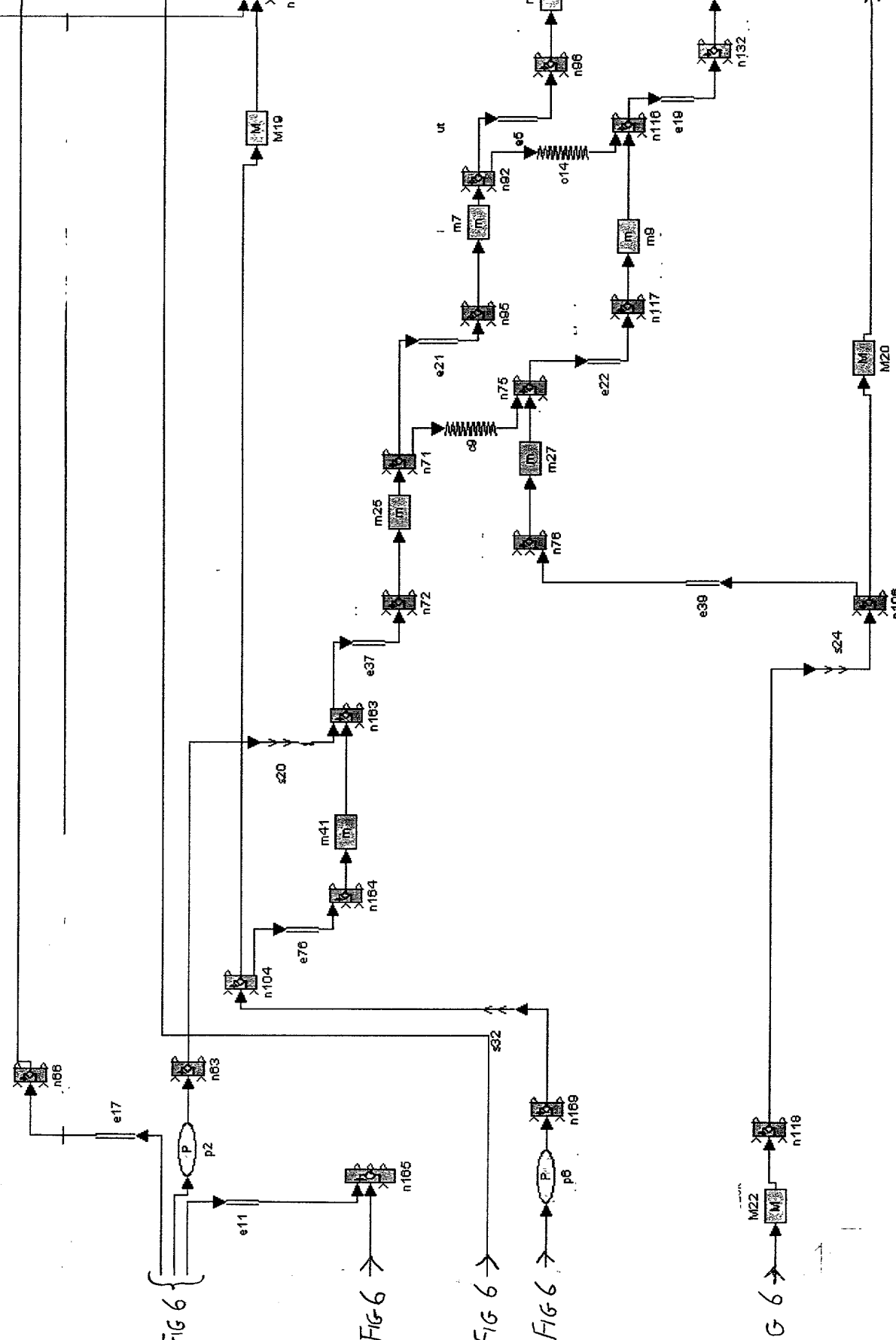
FIG 6

FIG 6

FIG 6

FIG 8

Fig 7



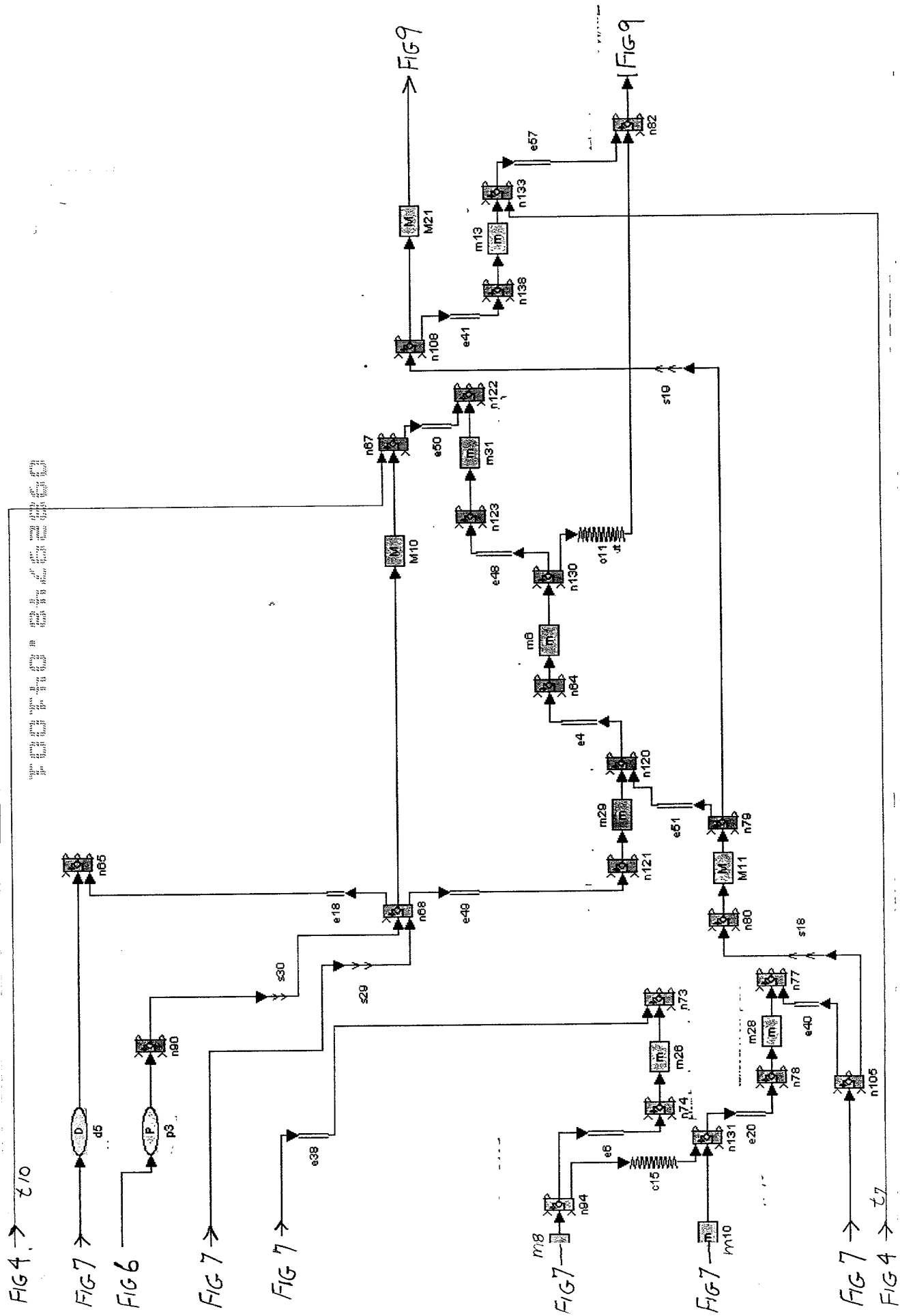


FIG 8

FIG 2

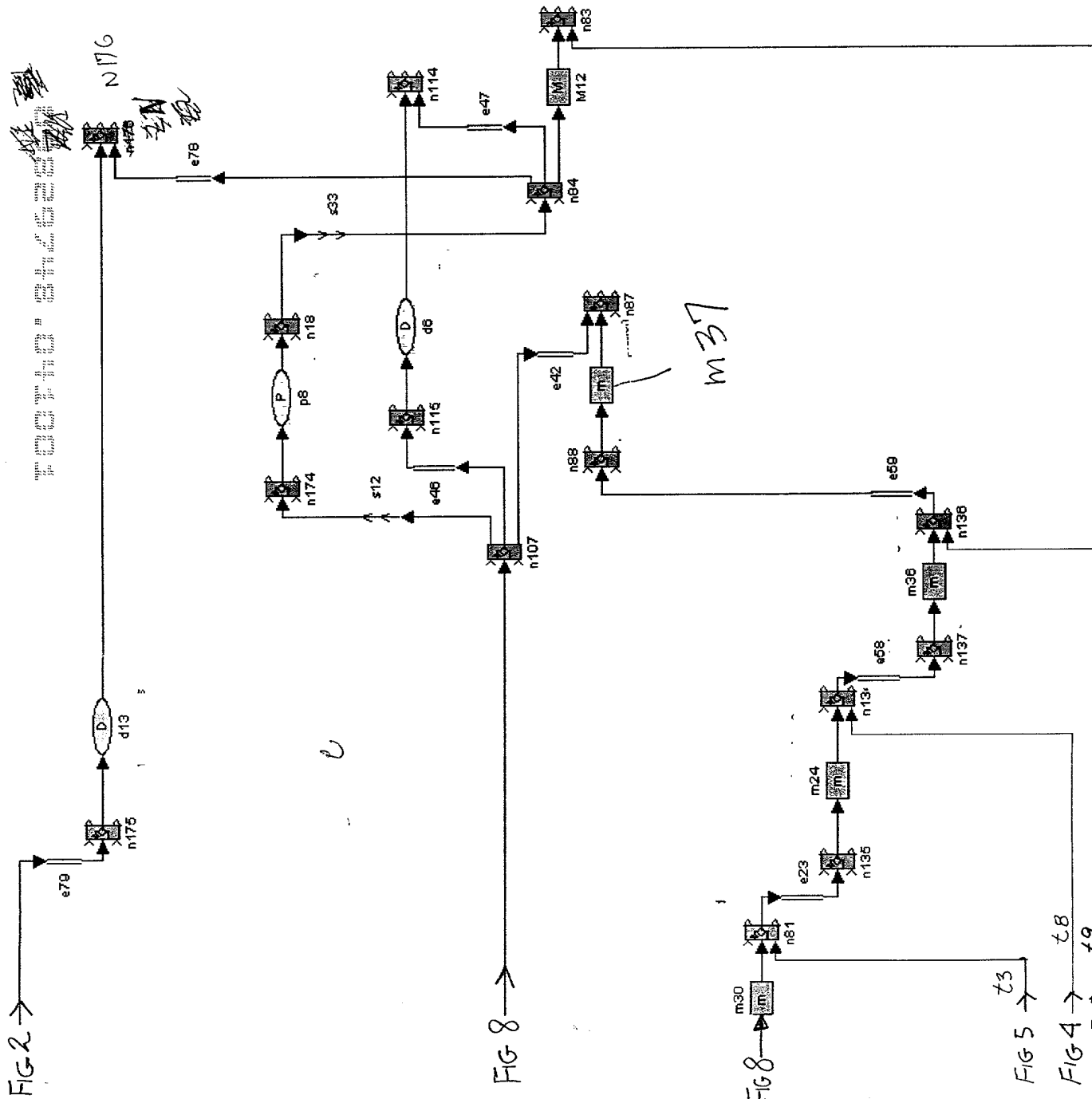


FIG 8

m37

FIG 8

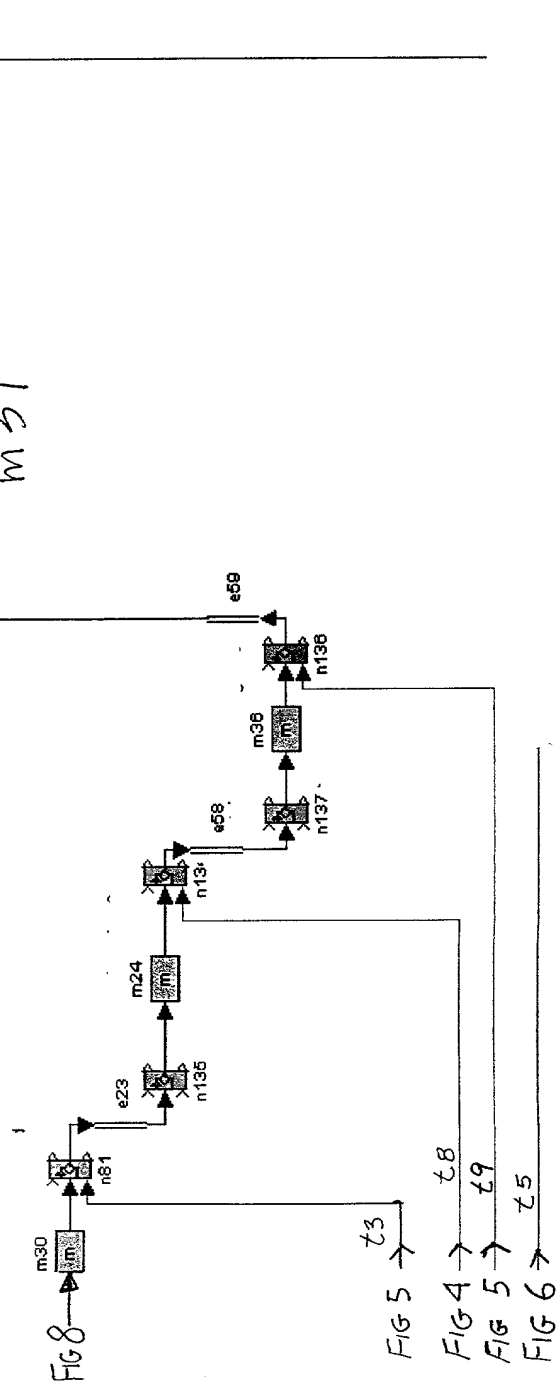


FIG 5

FIG 4

FIG 5

FIG 6

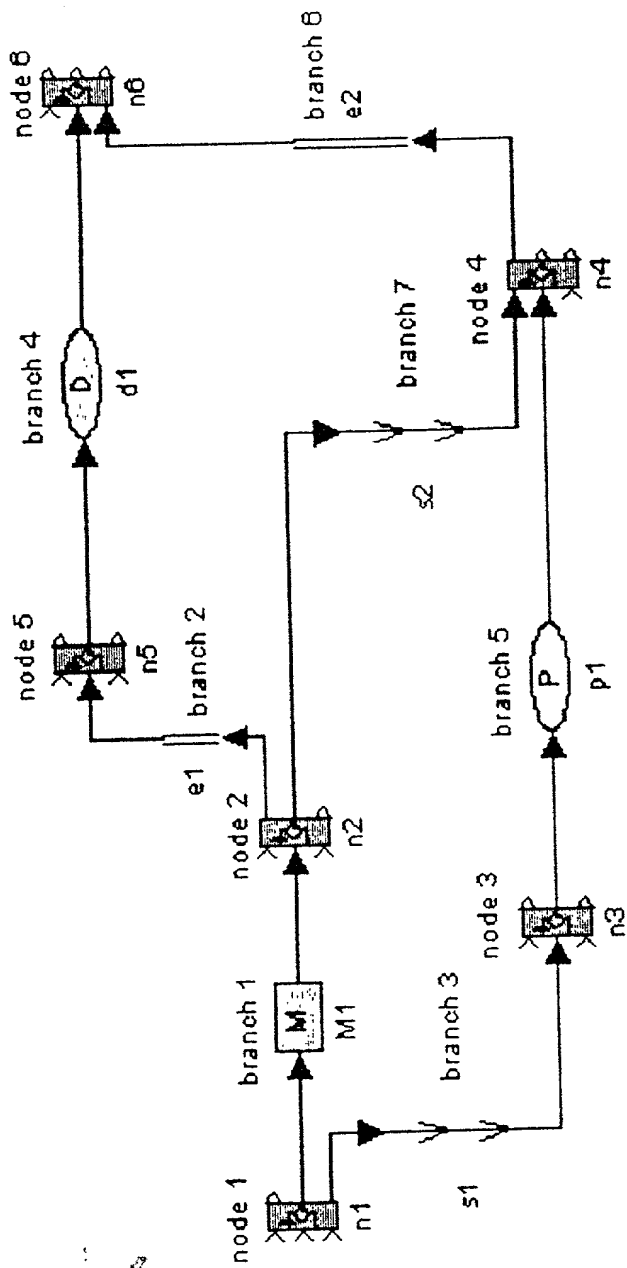


Fig- 10

[illegible]

G H

	Events	ON	OFF
2	Gob Interceptor	334	14
3	Blanks Close	324	130
4	Blanks Open	130	321
5	Plunger Up	33	123
6	First Baffle	9	125
7	Plunger Down	127	327
8	Funnel	1	150
9	Settle Blow	1	1
10	Plunger Cooling	150	260
11	Invert	200	260
12	Neckring Open	274.5	283
13	Revert	282	172
14	Molds Close/Open	229	170
15	Mold Cooling	10	150
16	Blowhead	290	113
17	Final Blow	348	120
18	Take Out IN	137	197
19	Tongs Close	178	78
20	Take Out OUT	197	90

Fig - 11

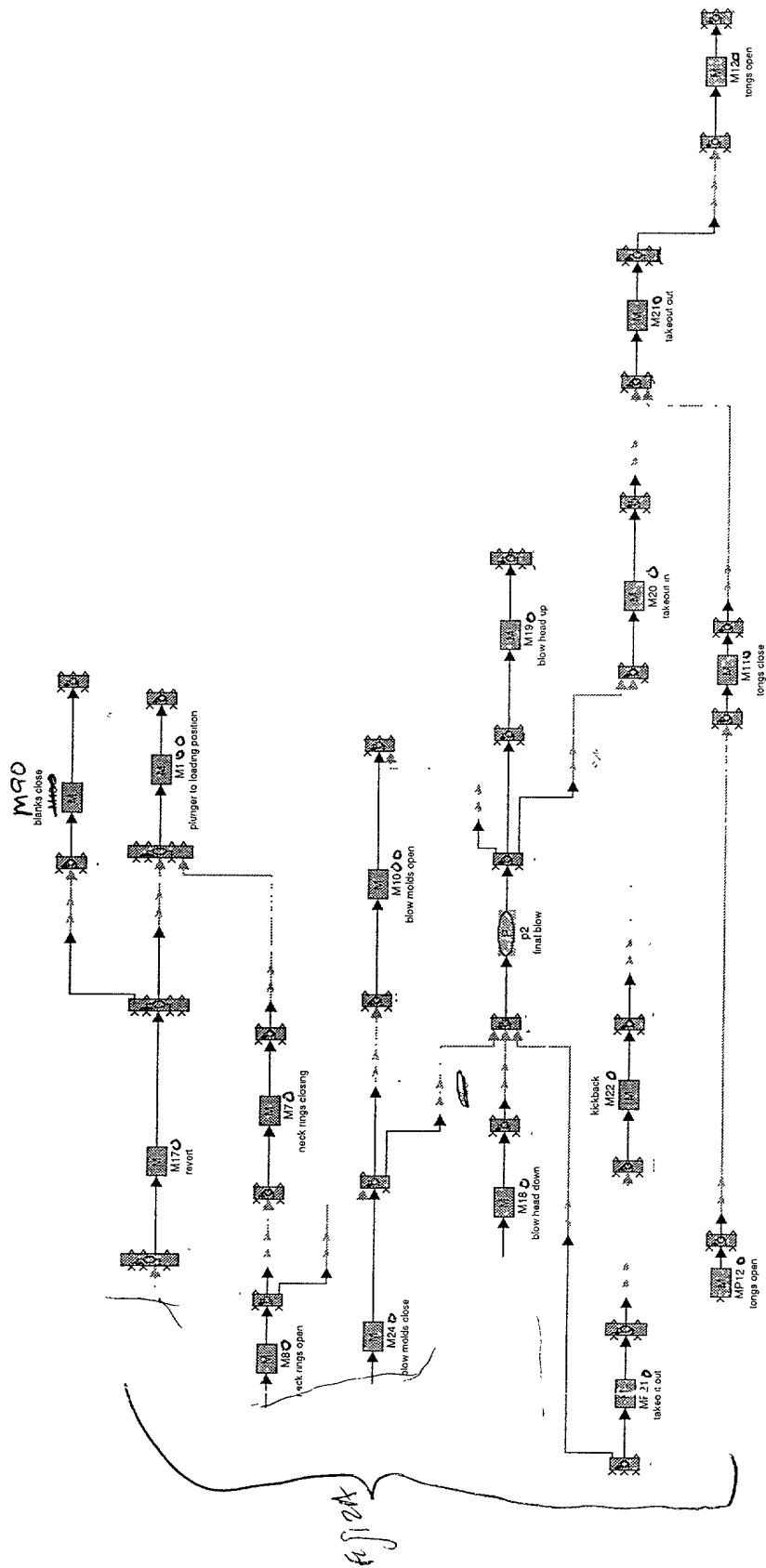


Fig 12B

60
DEFINE A NETWORK
CONSTRAINT DIAGRAM
FOR A BOTTLE FORMING
PROCESS IN AN I.S.
MACHINE

61
TRANSLATE ^{THE} NETWORK
CONSTRAINT DIAGRAM
INTO A DATA TABLE

DATA TABLE "N"
62
TRANSLATE ^{THE} DATA
TABLE INTO MATHEMATICAL
REPRESENTATION

64
COMPUTERIZED
MODEL

Fig-1

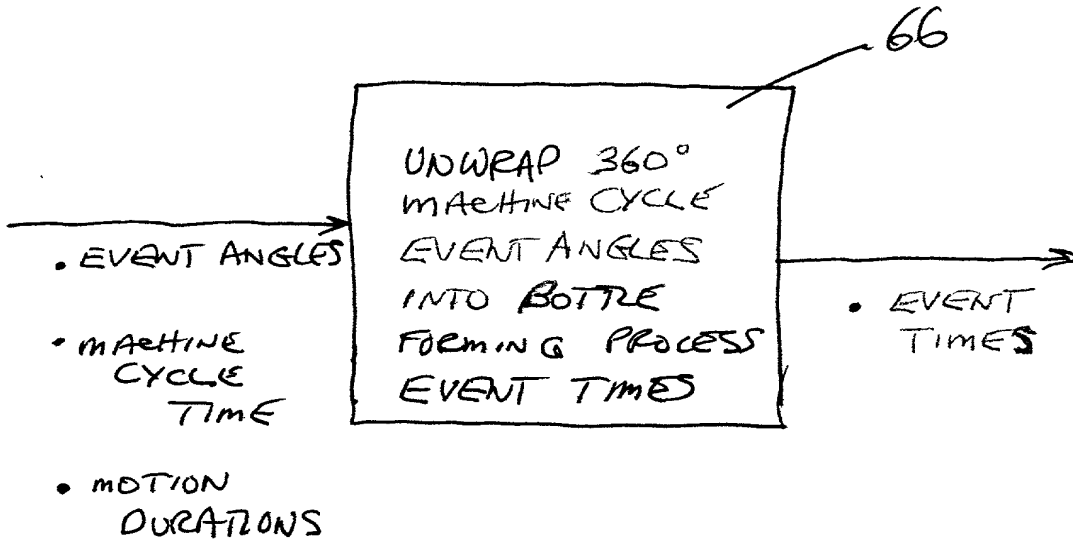
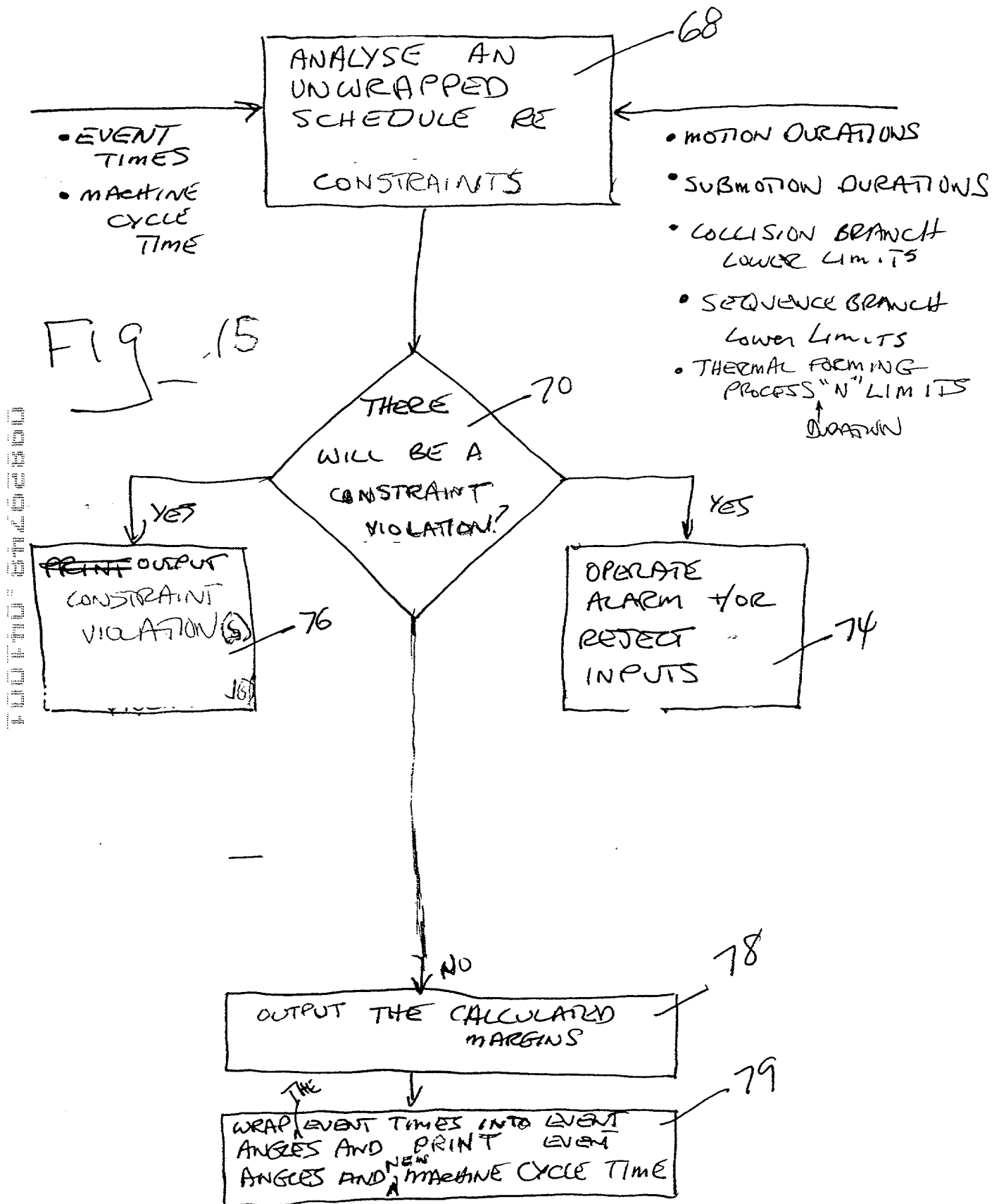
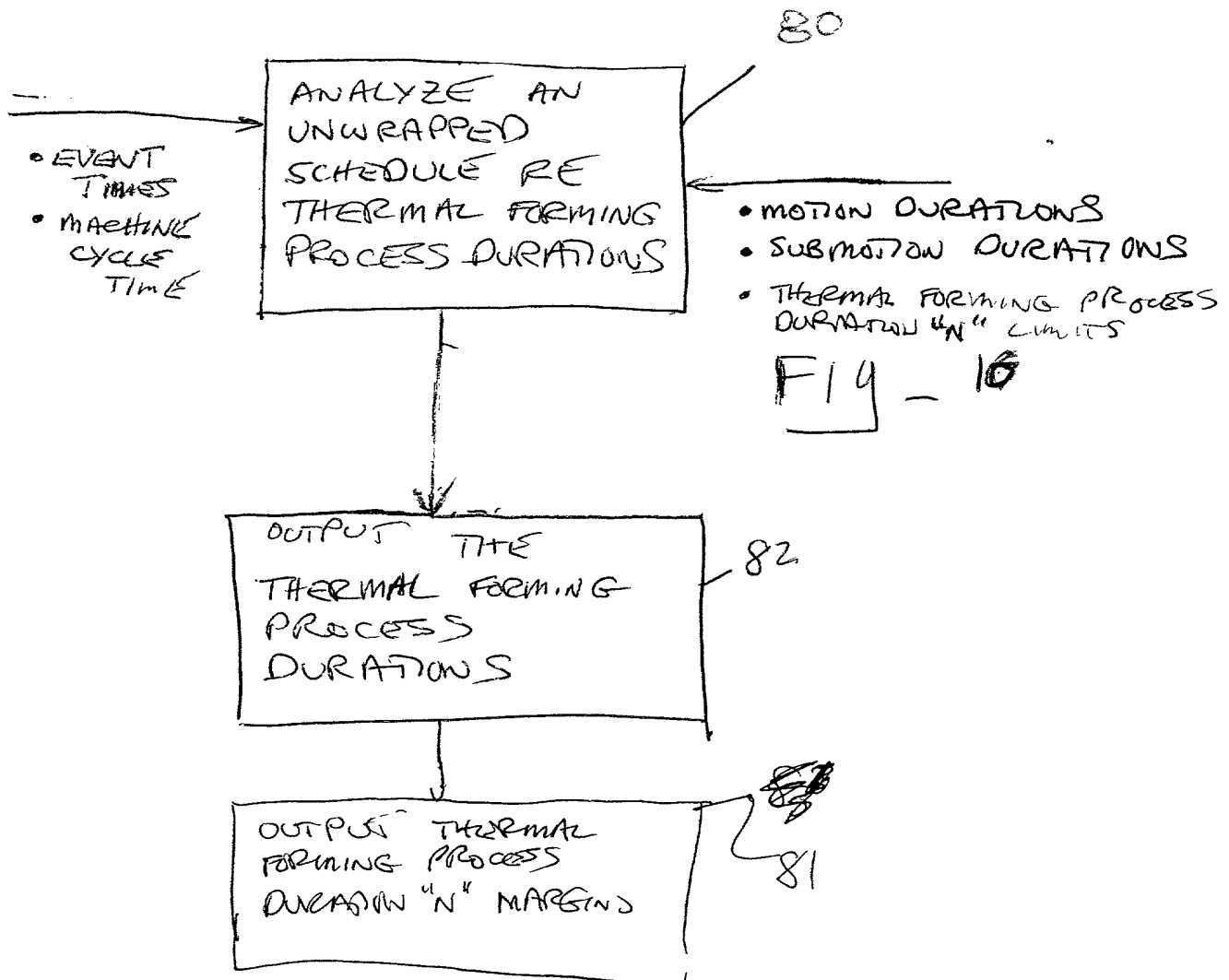


FIG-14



00000740 00000000



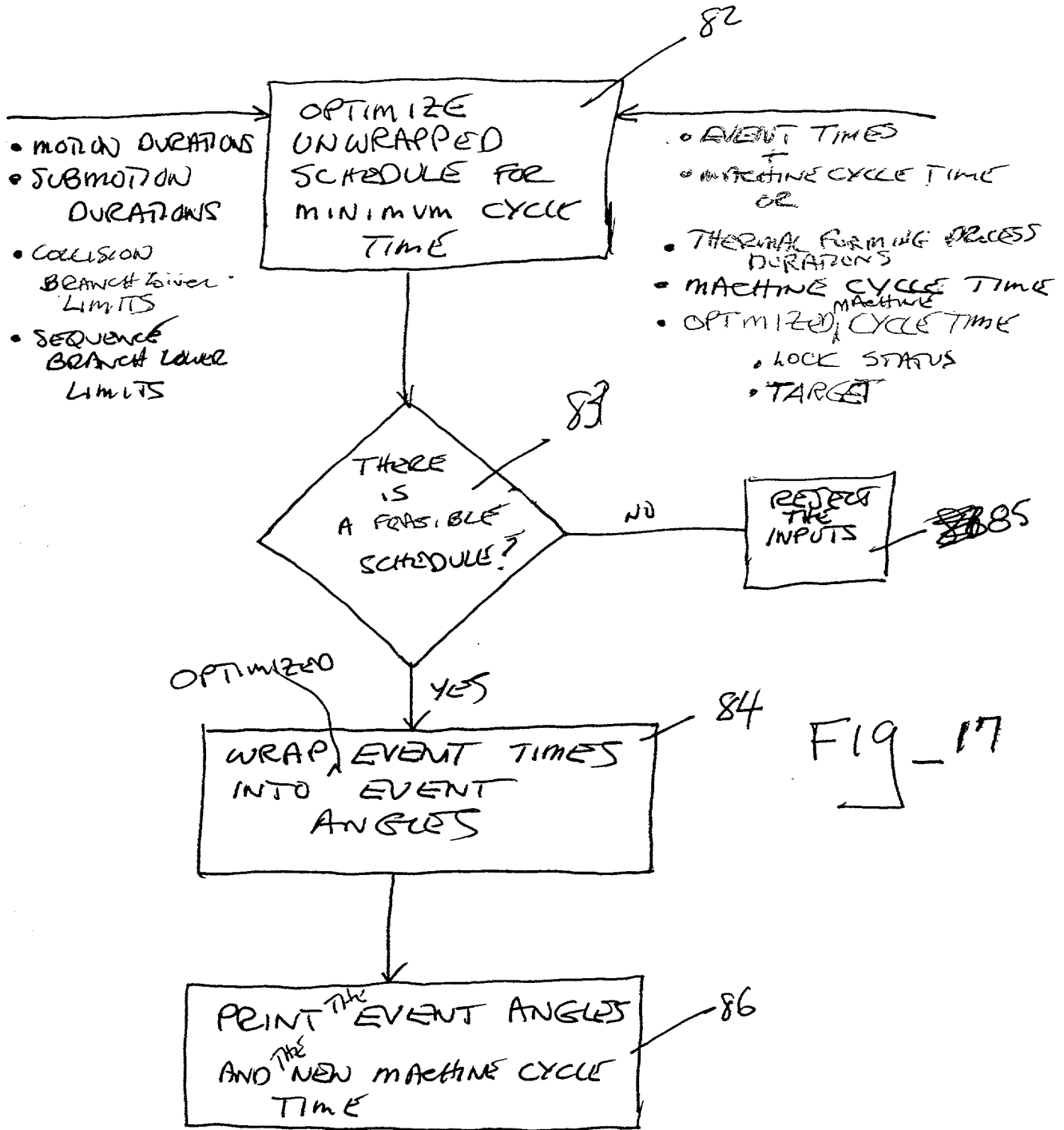
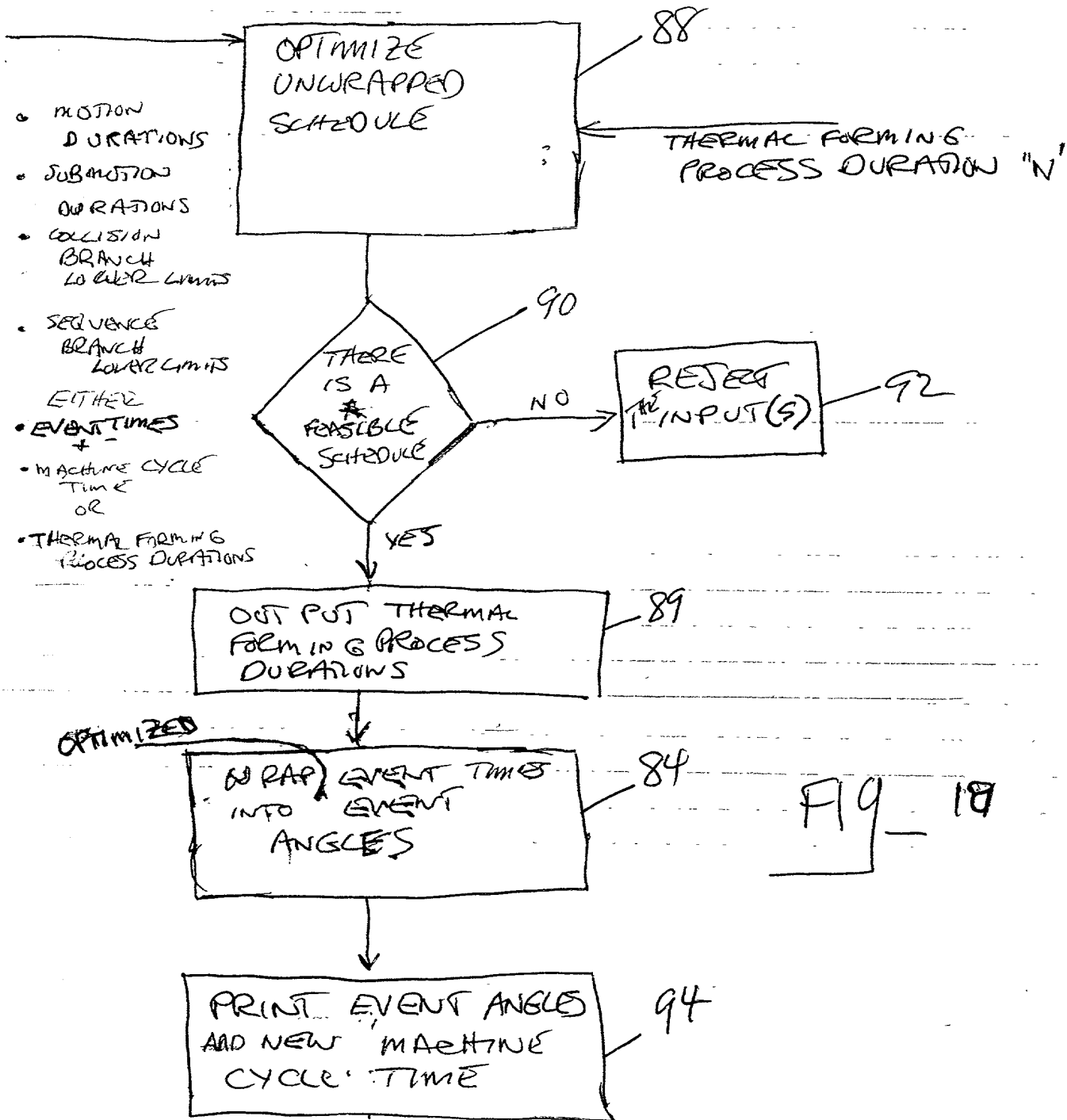


FIG. 17



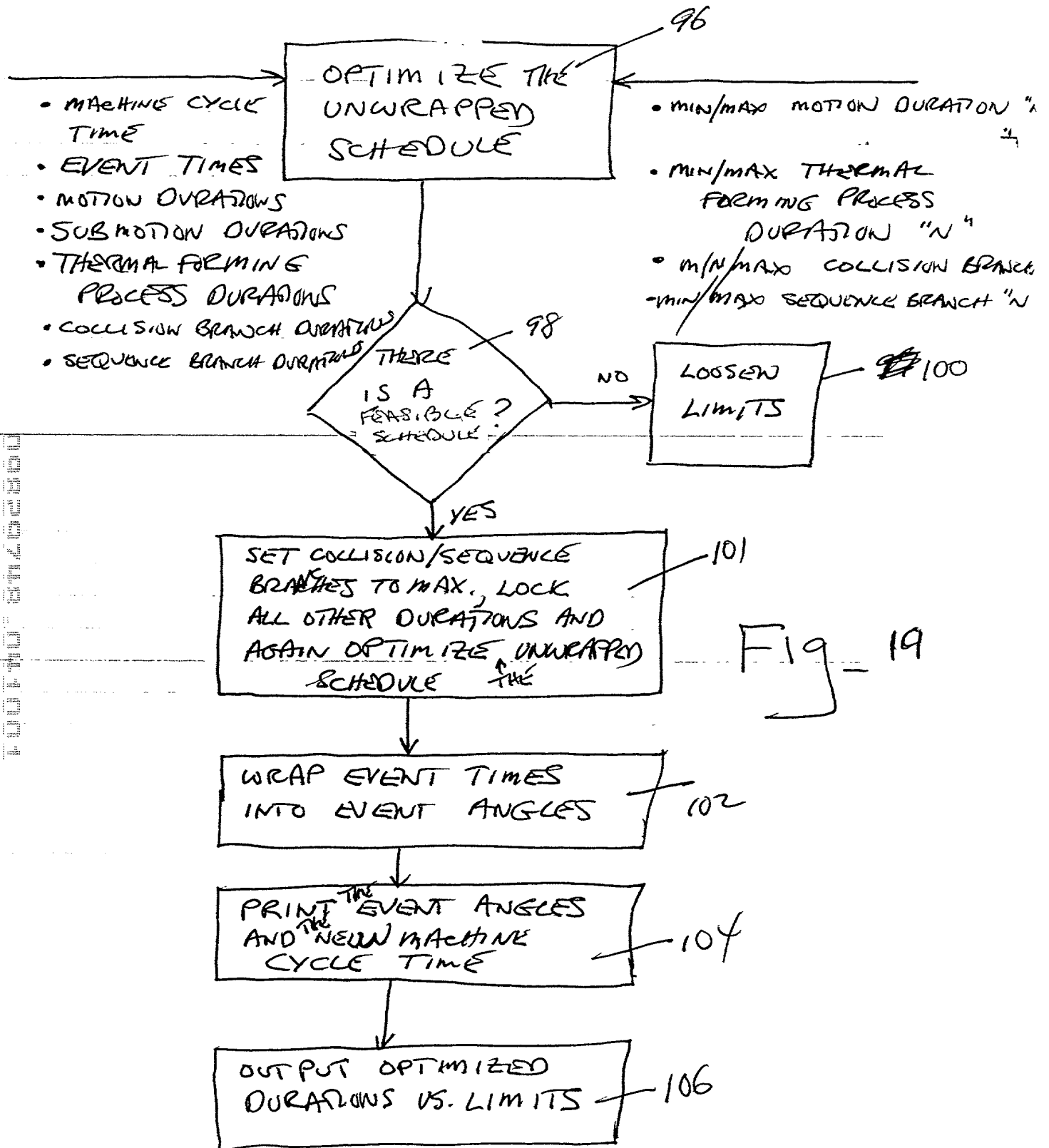


Fig-19

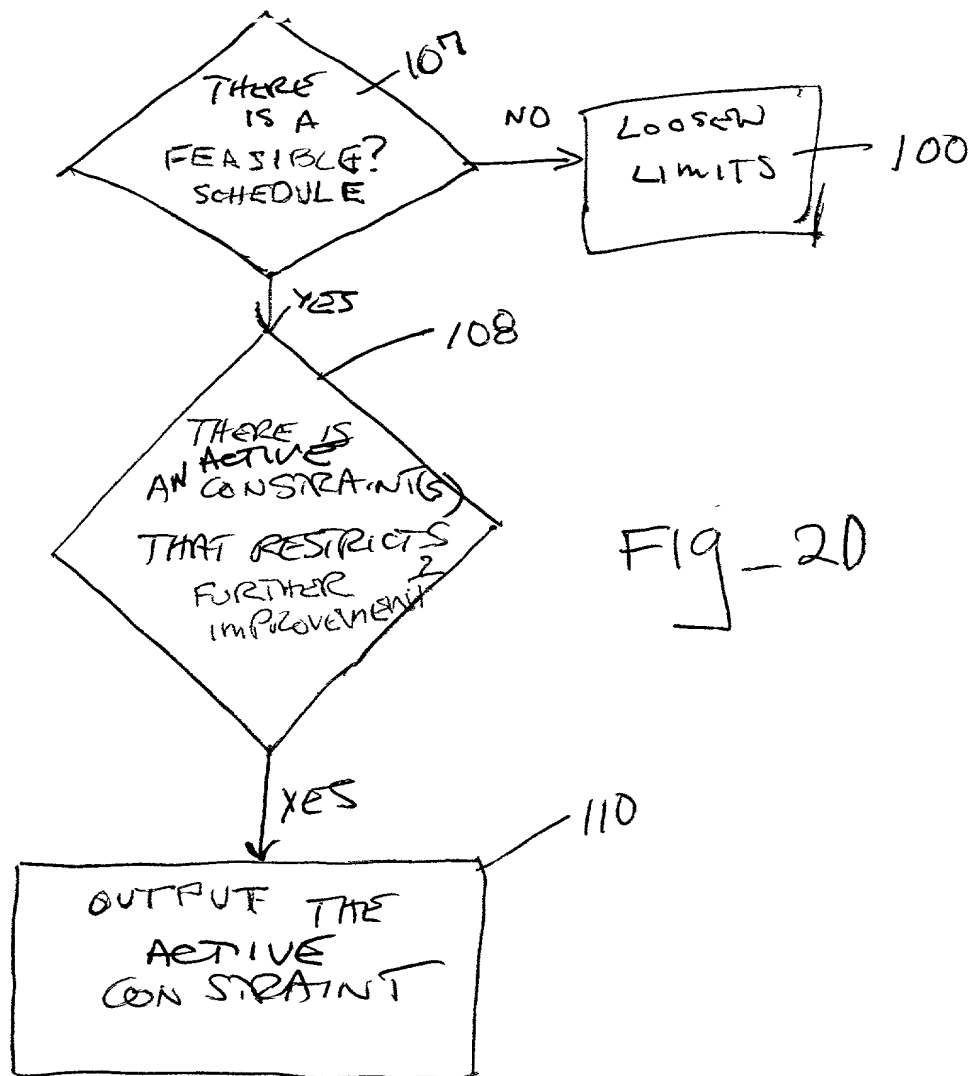
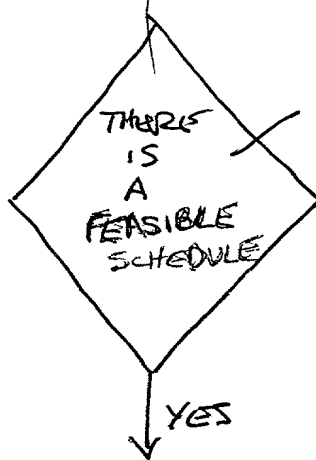


Fig-20

OPTIMIZE
UNWRAPPED
SCHEDULE



LOOSEN
LIMITS

100

112

OPTIMIZE THE
UNWRAPPED SCHEDULE
LOCKING ALL VARIABLES
EXCEPT SERVO
MOTION DURATIONS AND
SETTING ^{THREE}SERVO MOTION
DURATIONS AT LARGE VALUE

```
graph TD; D[OPTIMIZE THE UNWRAPPED SCHEDULE LOCKING ALL VARIABLES EXCEPT SERVO MOTION DURATIONS AND SETTING SERVO MOTION DURATIONS AT LARGE VALUE] --> E[DELIVER THE OPTIMIZED DURATION FOR SERVO MOTOR "N" TO SERVO MOTOR "N" CONTROLLER];
```

PRINT THE
OPTIMIZED
DURATION FOR
SERVO MOTOR "N"

114

DELIVER THE OPTIMIZED
DURATION FOR SERVO
MOTOR "N" TO SERVO
MOTOR "N" CONTROLLER

```
graph TD; E[DELIVER THE OPTIMIZED DURATION FOR SERVO MOTOR "N" TO SERVO MOTOR "N" CONTROLLER] --> F[ROUTE DURATION OF SERVO MOTOR "N" FROM SERVO MOTOR "N" CONTROLLER TO SERVO MOTOR "N" AMPLIFIER DRIVE CARD];
```

116

ROUTE DURATION OF
SERVO MOTOR "N" FROM
SERVO MOTOR "N" CONTROLLER
TO SERVO MOTOR "N"
AMPLIFIER DRIVE CARD

```
graph TD; F[ROUTE DURATION OF SERVO MOTOR "N" FROM SERVO MOTOR "N" CONTROLLER TO SERVO MOTOR "N" AMPLIFIER DRIVE CARD] --> G[CHANGE TO OPTIMIZED DURATION IN DIGITAL SIGNAL PROCESSOR];
```

118

CHANGE TO OPTIMIZED
DURATION IN DIGITAL
SIGNAL PROCESSOR

```
graph TD; G[CHANGE TO OPTIMIZED DURATION IN DIGITAL SIGNAL PROCESSOR] --> H[AMPLIFIER];
```

AMPLIFIER

FIG_21